Validation of FTF model at RHIC energies

V. Uzhinsky, 20 Feb. 2013

hadr-string-diff-V09-06-10	FTF model for Nucl-Nucl
had-partonstring-mgt-V09-0604	Part. String. Manag.
had-theo-HE-V09-06-03	High energy generators
had-binary-V09-06-01	Proj. nucleus residual

RHIC - Beam Energy Scan (BES) program, Ecms=7.7 – 200 GeV/NN

LHC - Nucl-Nucl: O+O, N+N, S+S, Fe+Fe, no deuteron beams
NA61/SHINE continuation of NA49

1. Glauber approximation
2. Correction of the number of collisions
3. Reggeon cascade in proj. and target
4. Energy-momentum conservation
5. Low energy extension (E > 200-300 MeV/N)
6. Excited nuclear residuals
7. De-excitation of the residuals

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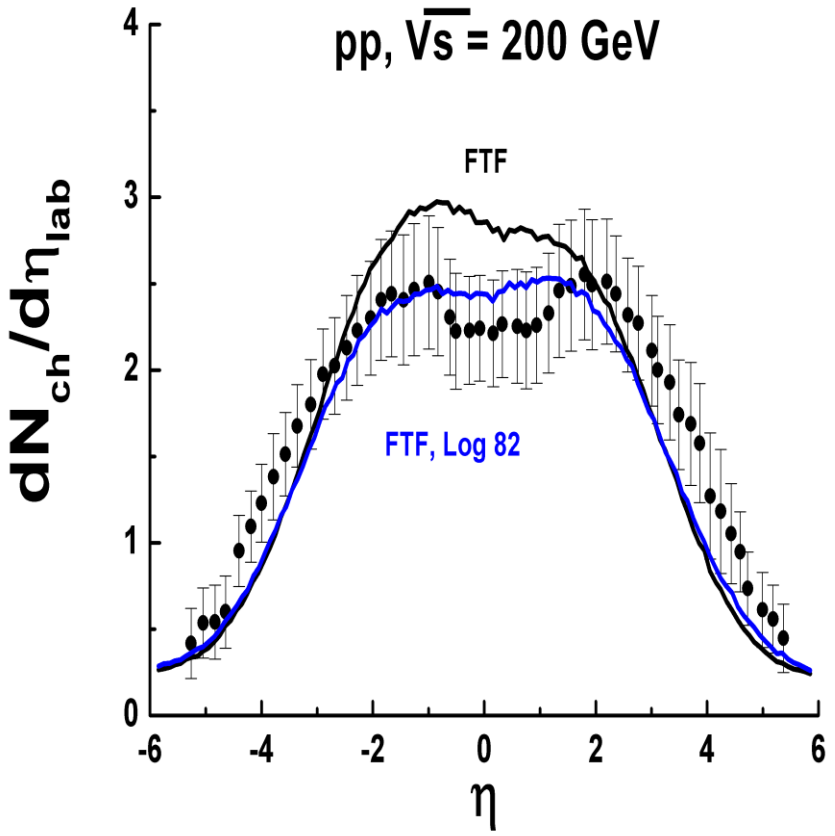
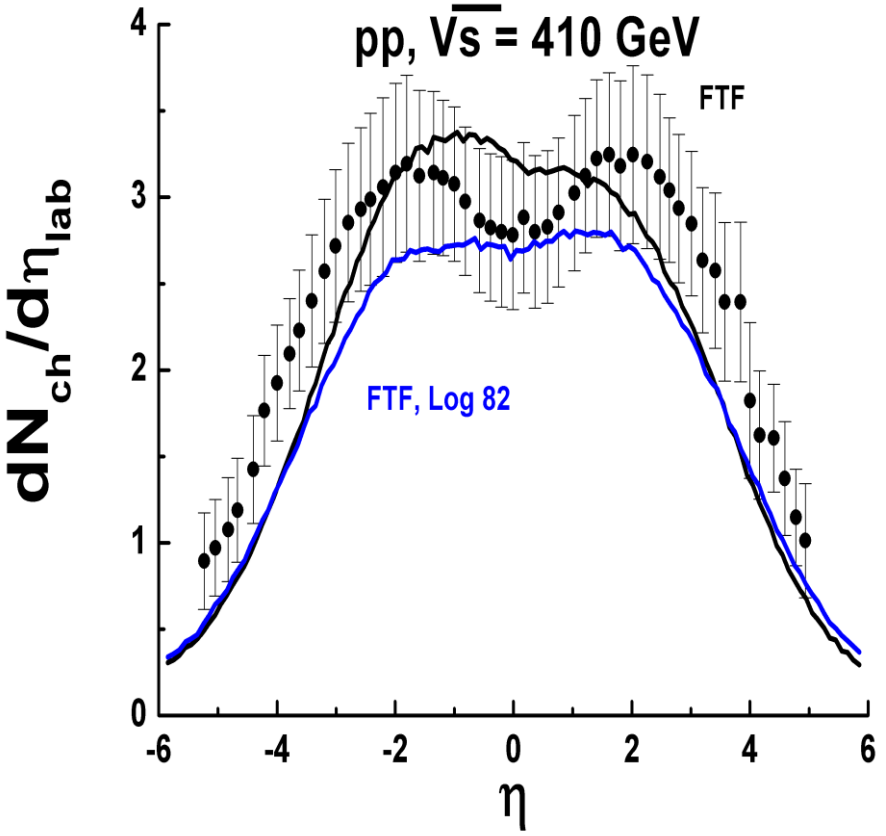
Check of model for pp-interactions

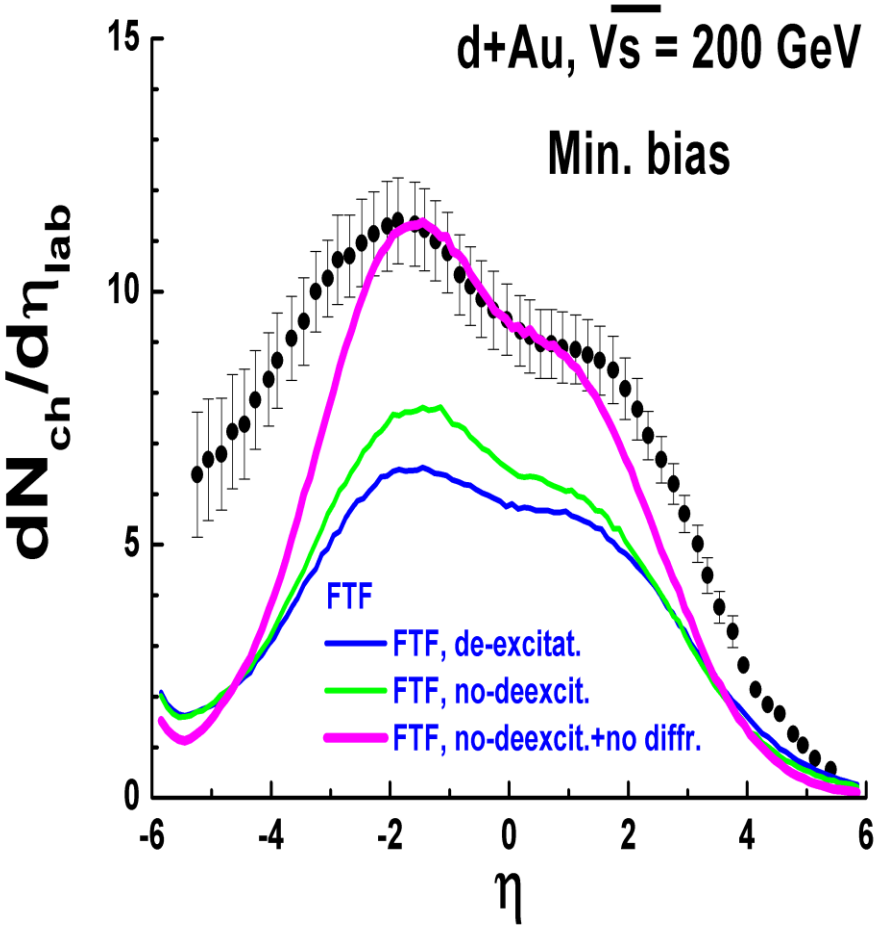


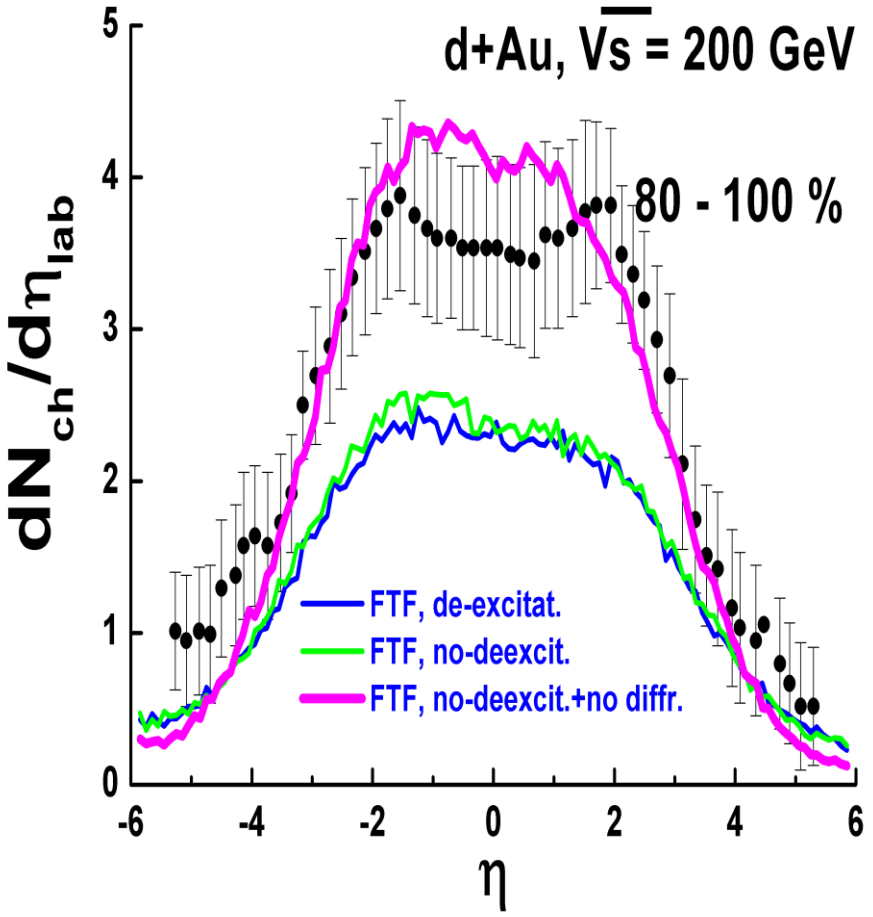


All O.K.

Validation of FTF model at RHIC energies

Check of model for dAu-interactions

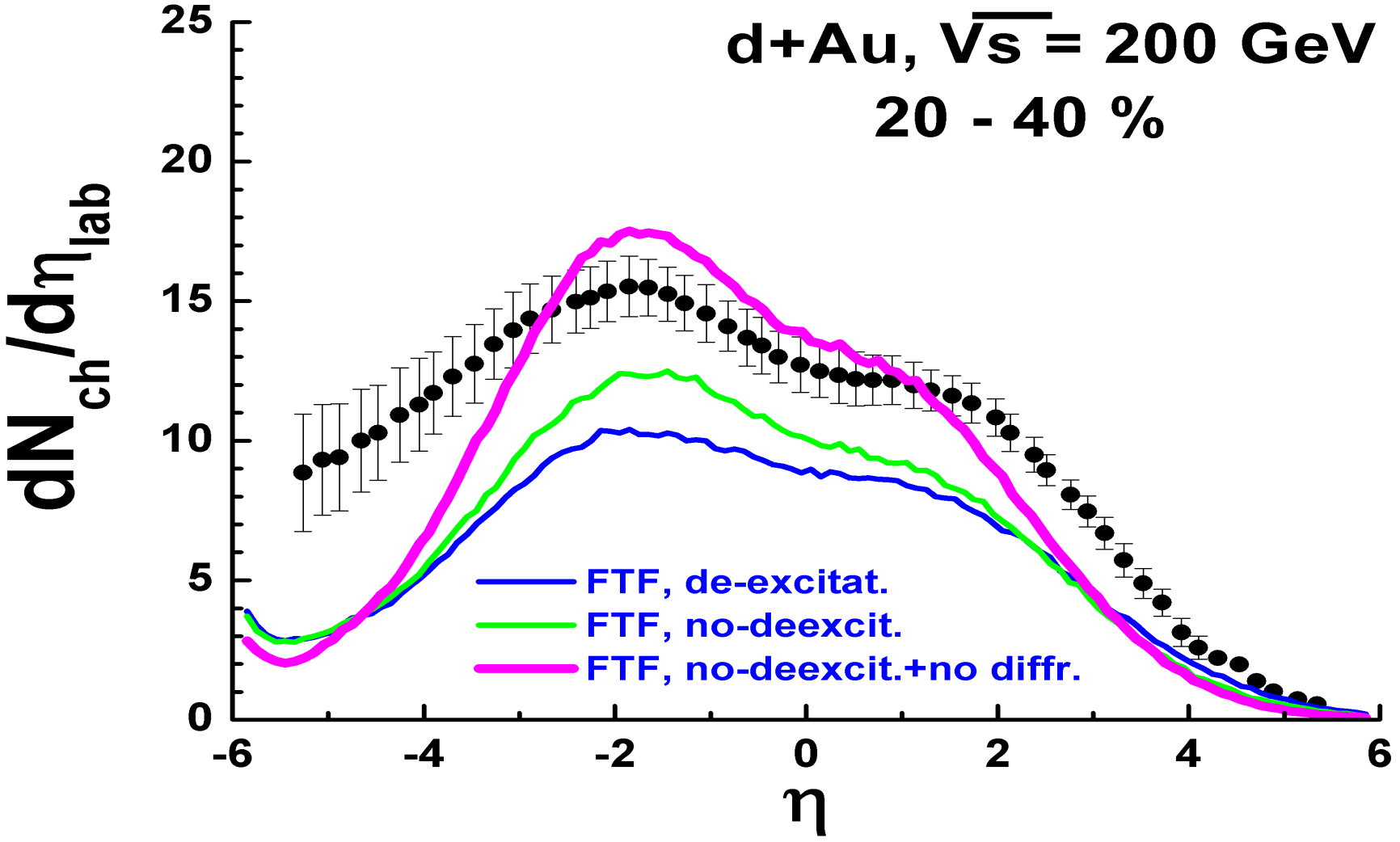




All O.K.

Validation of FTF model at RHIC energies

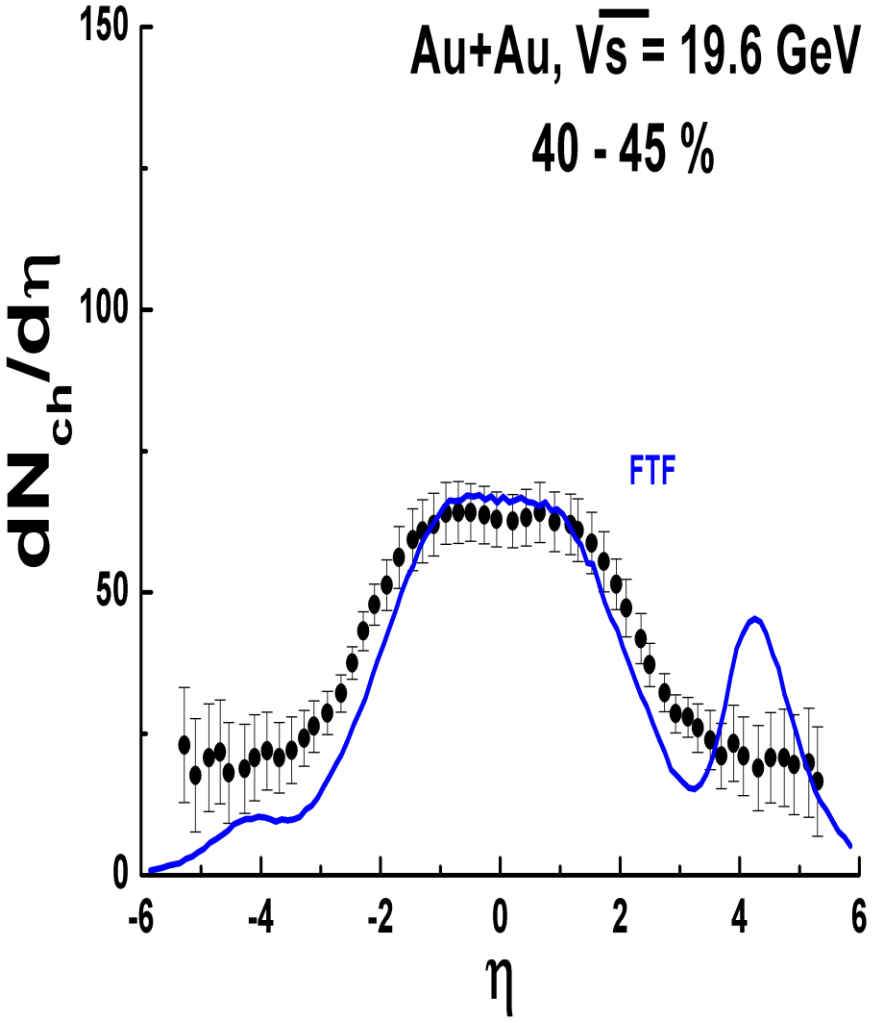
Check of model for dAu-interactions

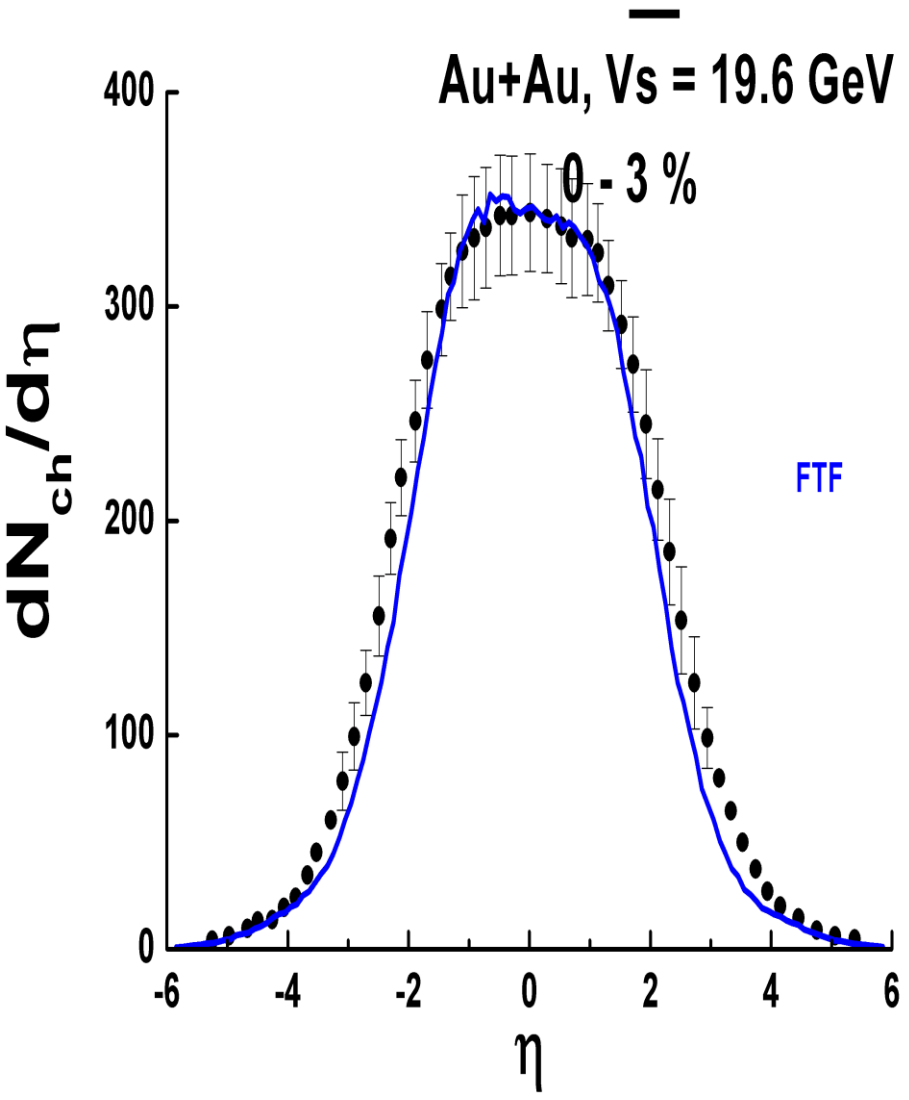


All O.K.

Validation of FTF model at RHIC energies

Check of model for AuAu-interactions at 19.6 GeV

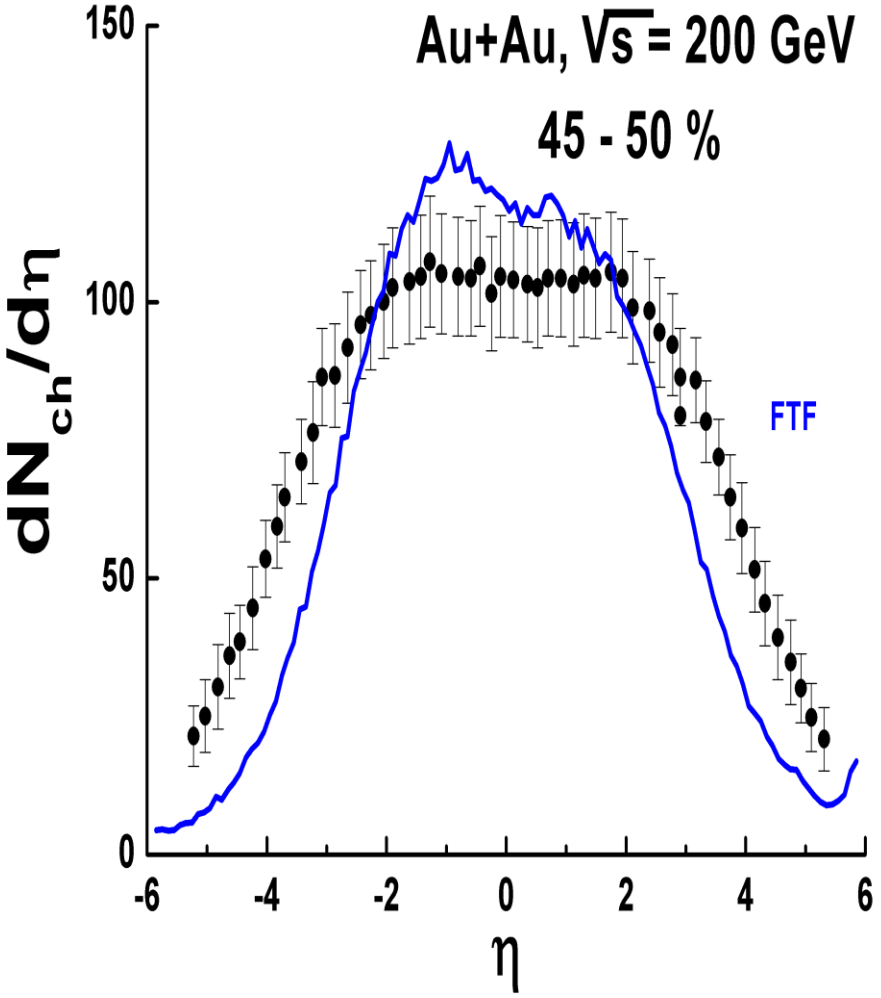


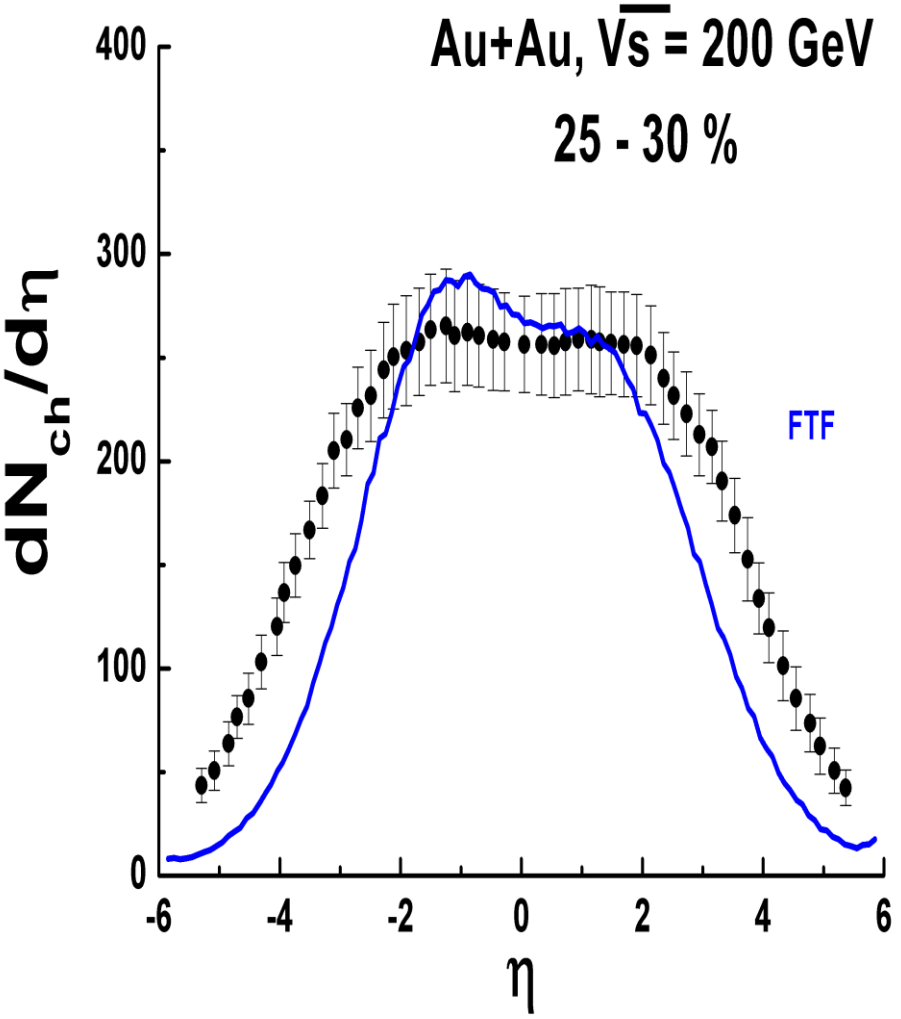


All O.K.

Validation of FTF model at RHIC energies

Check of model for AuAu-interactions at 200 GeV

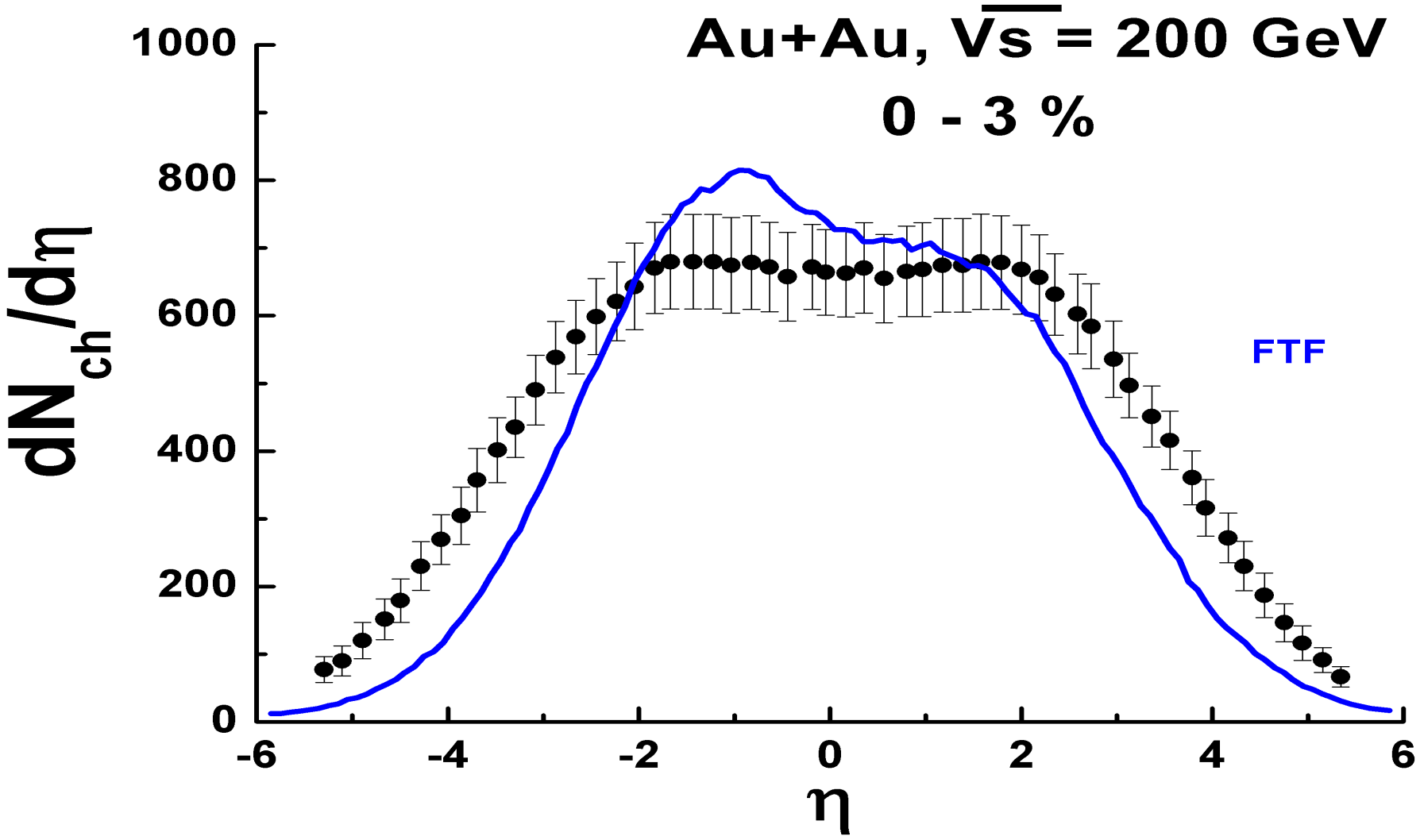




All O.K.

Validation of FTF model at RHIC energies

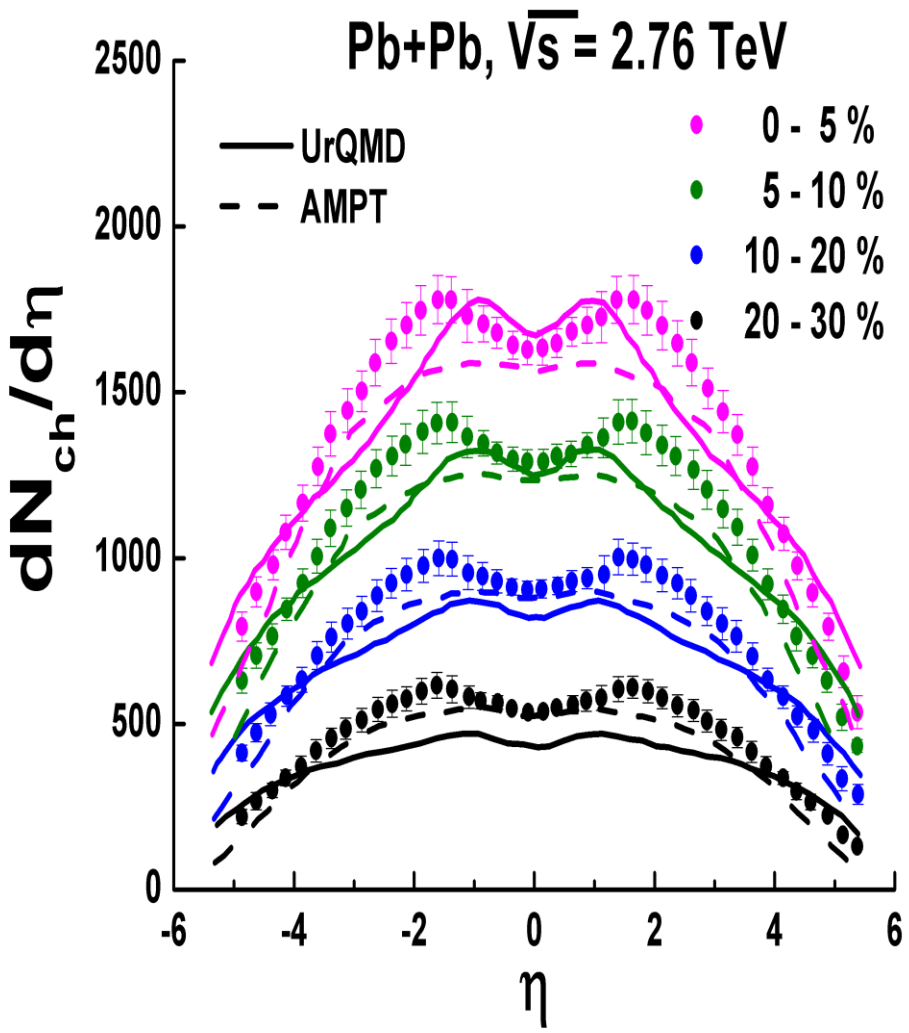
Check of model for AuAu-interactions at 200 GeV

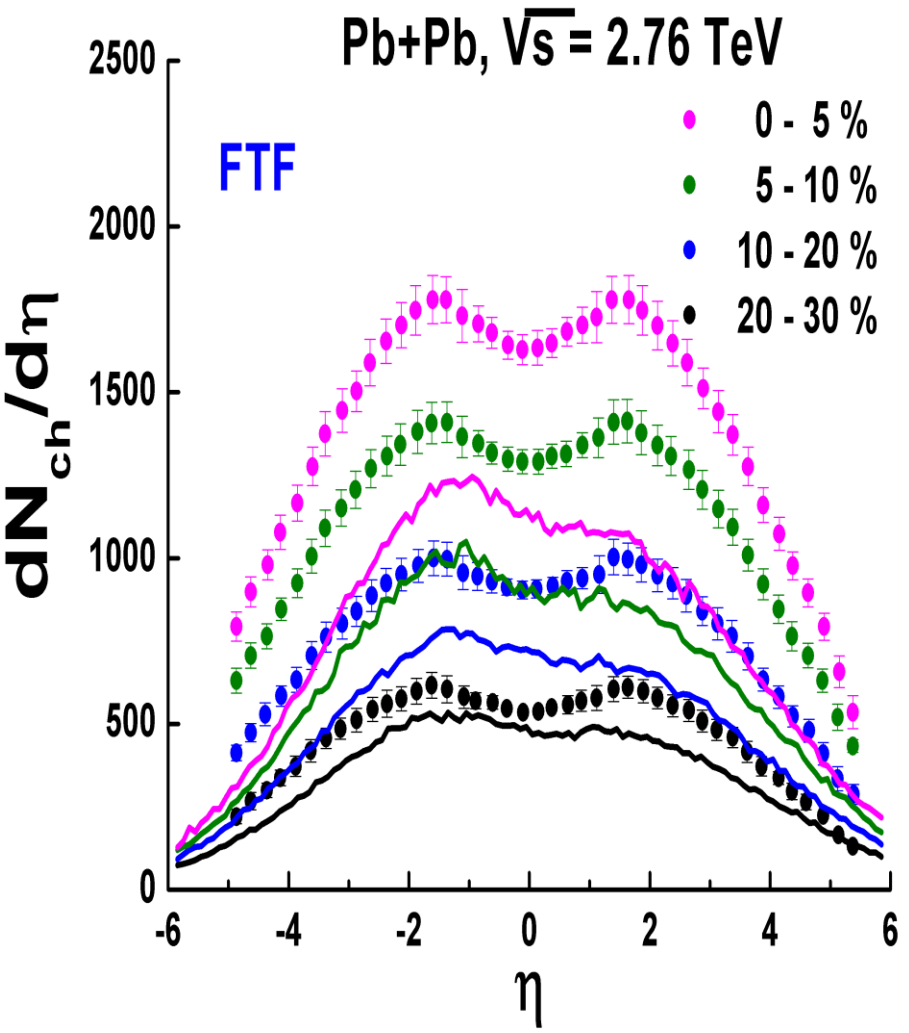


All O.K.

Validation of FTF model at RHIC energies

Check of model for PbPb-interactions at 2760 GeV





Not O.K.

Conclusion

FTF works well!

FTF predictions for RHIC energies are meaningful!

There is a problem at LHC energies!

High mass diffraction???

Tasks:

Validation of FTF model for hA interactions
Validation of FTF model for AA interactions

Documentation of FTF
Improvement of QGSM